ABSTRACT

The present invention is to provide TLR1 knockout mice specifically recognizing mycobacterial lipoproteins/lipopeptides, being useful to clarify the role of TLR1 in vivo, or a method for screening substances promoting or suppressing the response to mycobacterial lipoproteins/lipopeptides by using the same. TLR1 genes are separated from murine genomic library, the genomic part containing the intracellular and transmembrane domain of the TLR1 gene is replaced with a neomycin resistant gene, HSV-tk gene being gene encoding thymidine kinase into 3'end is introduced, ES cell clones having double resistance to G418 and Gancyclovir are screened, and ES cell clones are injected into the blastocyst of C57BL/6 mice, to generate TLR1 knockout mice through the germline.